APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/517,895	03/03/2000	Lev Novik	2150	5628

7590   06/19/2003

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EXAMINER
TRUONG, LECHI

ART UNIT	PAPER NUMBER
2126	

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/517,895	NOVIK ET AL.
	Examiner	Art Unit
	LeChi Truong	2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 March 2000</u> .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>11-20</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>11-20</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)   4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6) ☐ Other: .

DETAILED ACTION

This is in response to election filed 4/13/03. Applicants have elected claims 11-20 and

canceled claims 1-10.

Claim Rejections - 35 USC § 103

1.   Claims **11, 12, 14, 15, 19, 20** are rejected under 35 U.S.C. 103(a) as being unpatentable

over Ehab S. Al-Shaer (A Survey of Event Filtering Mechanisms for Dynamic Multi-Point

Applications) in view of William Ford(Data structure with C++)

As to claim 11, Ehab teaches notification (notification, section 2,1, ln 5-43, section 2.2,

ln 20-30), event (section 2,1, ln 5-43/ section 2.2, ln 20-30/ section 3.2.1, ln 5-50), an event

filtering tree (tree, section 3.2.1, ln 5-50), OR node (Predicates may be joined by operators such

as AND, OR and NOT, section 2.1 ln 5-43), a child node, another child node (node/predicate,

section 3.2.1, ln 5-50), a first evaluation/ second evaluation (test predicates, section 3.2.1, ln 5-

50), information of event(a single event/ the message field value, section 3.4.1, page 9, ln 3-13),

leaf node(leaf node/ the terminal node, section 3.2.1, ln 5-50), the result(True, False, section

3.2.1, ln 5-50), the occurrence of the event(the occurrence of the corresponding event, page 14,

ln 1-7), subscriber(1-10 / section 3.5, page 11, ln 1- 25), the query information satisfied by

event(True, False, section 3.2.1, ln 5-50/ message_id=51 or 17<= transaction-number< 40,

section 3.4, page 9, ln 1-13).

Ehab does not explicit teach traversing a tree. However, Ford teaches inorder traversal (

Page 547) .

It would have been obvious to apply the teaching of Johnstone to Ehab in order to visit

the node from the left tree of node to the parent node and the visit the right tree node.

As to claim 12, Ehab teaches information in leaf node corresponds to registered

subscribers (the true node that denotes the acceptance of the packet, section 3.2.1, ln 5-50).

As to claim 14, Shaer teaches leaf node (leaf node, section: 3.2.1, ln 32-50), true/false

(true, false, section 3.2.1, ln 32-50).

As to claim 15, Shaer teaches event parameter value (the message field value, section

3.4, page 9, ln 3-13), a data point (a matching value, section 3.4, apge 9, ln 3-13).

As to claim 16, Shaer teaches set of queries (SQL queries, section 3.3.2, page 8, ln 24-

47), the event filtering tree (event filter, section 3.3.2, page 8, ln 24-47).

As to the computer-readable medium of claim 19, refer to the rejection of claim 1.

Further, Shaer teaches at least two nodes (two terminal nodes).

As to claim 20, Shaer teaches plurality of data points (message_id and

transaction_number, section 3.4.2, page 9, ln 30-38).

2.   Claims **13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehab S. Al-

Shaer (A Survey of Event Filtering Mechanisms for Dynamic Multi-Point Applications) in view

of William Ford(Data structures with C++) further in view of Thai (US. Patent 5,666,528).

As to claim 13, Shaer teaches the query information (True, False, True, False, section

3.2.1, ln 5-50).

Shaer does not explicit teach the query information includes determining which

subscribers correspond to each satisfied query. However, Thai teaches the query expression

include a logical function... a logical function is an entity which evaluates to true or false (col 8,

ln 36-62).

It would have been obvious to apply the teaching of Thai to Shaer in order to select

desired events by entering the fitter using the queries corresponding to values stored in the fields

and to optimize for providing rapid access to the desired events.

3.   Claim **17** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ehab S. Al-Shaer

(A Survey of Event Filtering Mechanisms for Dynamic Multi-Point Applications) in view of

William Ford(Data structures with C++) in view of Thai (US. Patent 5,666,528) further in view

of Bhatt et al (US, Patent 6,405,191 B1).

As to claim 17, Shaer does not explicit teach the set of queries is received from an event

subscriber. However, Knight teaches the service receiving a query that is written in a query

language supported by the relational database system from a subscriber (col 14, ln 61-67).

It would have been obvious to apply the teaching of Knight to Shaer in order to make an

event-filtering tree take advantage of the existing knowledge base and toolsets of the query

language.

4.   Claim **18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ehab S. Al-Shaer

(A Survey of Event Filtering Mechanisms for Dynamic Multi-Point Applications) in view of

Thai (US. Patent 5,666,528) further in view of Knight et al (US. Pateny 6,493,703 B1).

As to claim 18, Shaer does not explicit teach the set of queries is received from an event

provider. However, Knight teaches the service provider specified queries col 19, ln 57-67).

It would have been obvious to apply the teaching of Knight to Shaer in order to make an

event-filtering tree take advantage of the existing knowledge base and toolsets of the query

language.

5.   *Conclusion*

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to LeChi Truong whose telephone number is (703) 305 5312. The
examiner can normally be reached on 8 - 5.

Fax phone: AFTER_FINAL faxes must be signed and sent to: (703) 746-2738, OFFICAL
faxes must be signed and send to: (703) 746-7239, NON OFFICIAL faxes should not be signed,
please send to: (703) 746-7240

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is 703 305 9000.

LeChi Truong
June 16, 2003